Runtime Actions

Once valid keyword combinations have been identified as either local or global functions in the Function Editor, it is possible to link each function with one or more runtime actions. Runtime actions consist of one or more steps which are to be carried out whenever a function is issued.

Below is information on:

- Define Runtime Actions
- Runtime Action Editor

Define Runtime Actions

There are two different locations in SYSNCP from which you can define runtime actions: the Function Editor (see the section Function Maintenance) and the Result Editor. The Result Editor is explained in this section, including how to specify runtime actions for a function.

▶ **To invoke the Result Editor**

1. On the Processor Source Maintenance menu, enter Function Code **R** (Define Runtime Actions).
2. Press ENTER.
   The Result Editor screen is displayed:

```
  09:47:03               ***** NATURAL SYSNCP UTILITY *****          2000-05-04
  User SAG                        - Result Editor -
  List defined combinations   Name SAGTEST   Library SYSNCP    DBID 10    FNR 32


  I Ac Location                           Command                          Result
  - -- ----------------------------- -------------------------------- --------
       < Global >                        MENU                             KR
       < Global >                        INFORMATION                      SF
       DELETE FILE                       DISPLAY FILE                     SF
       DELETE DOCUMENT                   DISPLAY DOCUMENT                 SF
       DISPLAY FILE                      DELETE FILE                      SF
       DISPLAY DOCUMENT                  DELETE DOCUMENT                  SF
       DISPLAY DOCUMENT                  FILE DOCUMENT                    SF
       FILE DOCUMENT                     DELETE DOCUMENT                  SF
       FILE DOCUMENT                     DISPLAY DOCUMENT                 SF
       MENU                              DELETE FILE                      KCS
       MENU                              DELETE DOCUMENT                  KCCS
       MENU                              DISPLAY FILE                     KRCS
  Repo _____ _____ --------


  Command ===>
  Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
         Help  Cmd   Exit  Last  List  Flip         +     Top   Loc-- Loc+  Canc
```

The Result Editor contains all of the local and global functions specified in the Function Editor. Each line in the editor represents the location from which a command can be issued (Location field), the command itself (Command field) and an abbreviated summary of the action to be carried out when the command is issued (Result field).

The fields of the screen are explained in detail in the table below:

Field	Explanation
I	Output field. Information on the last action carried out on this line.
Ac	Action to be taken. The following values can be entered: DI Display the runtime action definitions for this function. ED Edit the runtime action definitions for this function. PU Purge this function.
Location	Output field. The location within the application from which the command (see Command field below) can be issued. If the function is global, then < Global> appears in this field (the command can be issued from any location).
Command	Output field. The command. The contents of the Location and Command fields may be truncated if very long keywords are used.
Result	Output field. Contains an abbreviated summary of the action to be performed when the command is issued. The first character represents the Keep Location information (see the following section); for all other characters, see the Runtime Action Definition table below.

Runtime Action Editor

The Runtime Action Editor is used to define the actions to be taken when a command is issued from a specific location. The editor can only be invoked for functions which have been defined as global or local functions. The editor can be invoked either from the Function Editor or the Result Editor.

▶ **To invoke the Runtime Action Editor from the Function Editor**

1. In the Ac field, enter **EG** (edit global) for global functions.
   Or
   In the Ac field, enter **EL** (edit local) for local functions.
2. Press ENTER.

▶ **To invoke the Runtime Action Editor from the Result Editor**

1. In the Ac field, enter **ED**.
2. Press ENTER.
   The Runtime Action Definition window is displayed:

```
                      Runtime Action Definition

  Location .... DISPLAY DOCUMENT
  Command ..... DELETE DOCUMENT

  Keep Location .... S
  Data allowed ..... Y   More than one .... N   Max. Length ...... 99
  Numeric .......... N   TOP of STACK ..... Y   Error: Drop ...... Y

  A  Runtime Action Definition
  -  -------------------------------------------------------------
  F  DE-PGM_____
  _  _____
  _  _____
  _  _____
  _  _____
  _  _____
  _  _____
  _  _____
```

Actions are always associated with an origin and a destination. The origin is the location from which the command is issued, and the destination is the command itself. Thus, it is possible to link different actions to a command based on the context in which it is used.

In the Runtime Action Editor, you also specify whether the location is to remain the same after the actions have been carried out, or whether the command itself is to become the new current location.

Actions are specified by entering a single-letter code in the left column of the editor. Enter any parameters accompanying an action in the field next to the code. If the characters "/*" are entered in this field, all subsequent input is considered a comment. If you omit a required parameter, you will be prompted for input.

The sequence in which actions are performed at runtime is determined by the order of entry in the editor (from top to bottom). Thus, if a FETCH is specified, all of the actions specified below it are not to be performed.

The Runtime Action Editor contains the following fields:

Field	Explanation
Location	Output field. The location from which the command is issued. If the function is defined as global, the field shows < Global>.
Command	Output field. Command for which actions are to be specified.
Keep Location	Specifies whether the current or a new location is to be active once the actions have been performed. A value in this field only affects commands with a specified EXEC option. Possible values are: K Keep current location. The actions to be performed affect the current location only. S Set new location (global/local). Once the actions are performed, the command processor makes the command the new current location. Every command entered subsequently has to be either a local command of this new location or a global command. **Note:** The defined actions themselves have no influence on the location; that is, any action performed does **not** cause the current location to be changed.
Other Options	All other options are related to the handling of parameters provided with this command sequence. For further information, see Command Data Handling - Header 4 in the section Header Records. To activate the header defaults of these options, enter an asterisk (*).

▶ To define runtime actions

1. Invoke the Runtime Action Definition window as described earlier.
2. In the field **A**, enter an action code and the corresponding action in the field opposite to it:

Code	Runtime Action Definition
V	Default value. No runtime action is specified.
T	Text which can be read at runtime using the TEXT or GET option of the PROCESS COMMAND statement.
M	Modify command line. The data are placed in the command line.
C	Command. This command is placed at the top of the Natural stack. If an asterisk (*) is specified here, the name of the program which issued this PROCESS COMMAND statement is put on top of the stack (STACK TOP COMMAND '*PROGRAM'). (*)
D	Data. These data are placed on top of the Natural stack. (*)
F	Natural program name. The program is invoked with a FETCH statement. (*)
S	Natural STOP statement. The statement is executed at runtime. (*)
E	The value specified in this line is to be moved immediately into the system variable *ERROR-NR.
R	A return code is entered in the DDM field RETURN-CODE as described in PROCESS COMMAND in the Natural Statements documentation.
1 to 9	A text string. This value is entered into the multiple DDM field RESULT-FIELD as described in PROCESS COMMAND in the Natural Statements documentation.
*	Comment line.

* These actions are only performed with the EXEC option of the PROCESS COMMAND statement.

3. Press PF3 to leave the Runtime Action Definition window.

Note:
The user exit NCP-REAM allows you to use some or all of the above codes. The user exit NCP-REEM allows you to modify the line that follows the heading of the Runtime Action Definition table. The user exit NCP-REDM allows you to define default values for runtime action definitions (if you use this user exit, see also Invoke Action Editor in the section Header Records).